

**REMARKS**

In the Office Action,<sup>1</sup> the Examiner took the following actions:

- 1) rejected claims 1-7 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement;
- 2) rejected claims 1-7 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement;
- 3) rejected claims 1-7 under 35 U.S.C. § 112, second paragraph, as being indefinite;
- 4) rejected claims 1-6 under 35 U.S.C. § 101 as being directed to non-statutory subject matter;
- 5) rejected claims 1, 2, 4, and 6 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,502,131 to Vaid et al. ("Vaid");
- 6) rejected claim 7 under 35 U.S.C. § 103(a) as being unpatentable over *Vaid* in view of U.S. Patent No. 6,061,505 to Pitchaikani et al. ("Pitchaikani");
- 7) rejected claim 3 under 35 U.S.C. § 103(a) as being unpatentable over *Vaid* in view of U.S. Publication No. 2003/0197726 to Weitzman ("Weitzman");
- 8) rejected claim 5 under 35 U.S.C. § 103(a) as being unpatentable over *Vaid* in view of U.S. Patent No. 5,659,694 to Bibayan ("Bibayan"); and
- 9) provisionally rejected claims 1-5 and 7 on the ground of non-statutory obviousness-type double patenting.

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<sup>1</sup> The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

**Rejections of Claims 1-7 under 35 U.S.C. § 112, First Paragraph**

Applicants respectfully traverse the rejection of claims 1-7 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

The Examiner alleges that the claimed recitation “hierarchically inferior” does not comply with the enablement requirement. The Examiner states, “it is unclear to the examiner how [Applicants’ specification, page 5, lines 9-21] enable without undue experimentation.” Office Action, p. 3. The Examiner further alleges that Applicants’ specification “does not define the phrase ‘inferior’ or . . . ‘hierarchically inferior’ in the context of the applicant’s invention.” *Id.*

First, Applicants’ specification need not explicitly define the words “hierarchically” and “inferior” or the phrase “hierarchically inferior,” because the meaning of these terms are well known to any person skilled in the art. For example, “hierarchically” means “of, relating to, or arranged in a hierarchy”<sup>2</sup> and “hierarchy” can mean “a graded or ranked series.”<sup>3</sup> “Inferior” can mean “of low or lower degree or rank.”<sup>4</sup> Applicants did not intend to be lexicographers nor imply any special meaning with respect to these words. Accordingly, Applicants need not provide explicit definitions of these terms to satisfy the enablement requirement of 35 U.S.C. § 112, first paragraph.

The Examiner states, “the term hierarchical could mean sorting data in ascending order . . . or it could mean a network connection with a central server.” *Id.* at 24. Although, Applicants’ specification does not explicitly define “hierarchically,” the

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<sup>2</sup> Merriam-Webster’s Collegiate Dictionary, 11th Ed., 2004.

<sup>3</sup> Merriam-Webster’s Collegiate Dictionary, 11th Ed., 2004, definition 6.

<sup>4</sup> Merriam-Webster’s Collegiate Dictionary, 11th Ed., 2004, definition 2a.

meaning can be inferred from the specification at, for example, page 5, lines 9-14 and page 13, lines 4-9.

Second, undue experimentation is not necessary to practice Applicants' claimed invention. "Within the grid computing environment 100, pairs of grid managers can have directional relations that classify one grid manager as superior and [the other inferior] grid manager." Specification, p. 5, lines 10-12. Undue experimentation is not necessary for a person skilled in the art to practice Applicants' claimed invention, because the superior/inferior hierarchical relationships among grid managers can be designated during configuration.

Because "hierarchically inferior" does not need to be defined in the specification and undue experimentation is not necessary, the enablement requirement of 35 U.S.C. § 112, first paragraph, is satisfied. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 1-7 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement

Applicants respectfully traverse the rejection of claims 1-7 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

The Examiner alleges that the claimed recitation "storing a list" fails to comply with the written description requirement. The Examiner states "[t]he phrase 'storing lists' does not appear to be explicitly defined in the specification[], therefore the phrase 'storing lists' is not in the context of the applicants' invention and specification[] as originally filed. Therefore, the phrase 'storing lists' is considered to be new matter." Office Action, p. 4. This is incorrect.

First, claim amendments reciting “storing a list” do not introduce new matter. The originally filed specification states “[a] grid manager . . . maintains a first list of . . . grid managers and a second list of . . . grid managers” (p. 5, lines 22-24) and a “property file contains a list of addresses of . . . grid managers” (p. 11, lines 3-4). Furthermore, the originally filed specification states “memory devices for storing . . . data” (p. 14, lines 30-31) and “mass storage devices for storing data” (p. 15, line 1), and a list of grid managers and a file containing such a list are forms of data which are stored. Therefore, the specification, as originally filed, contains sufficient support for the claimed recitation “storing a list.”

Second, Applicants need not explicitly define “storing a list” in the specification, because the words of the phrase are common English words used in their ordinary meaning, and the meaning of the phrase is well known to a person skilled in the art. For example, a “list” can mean “a simple series of words or numerals (as the names of persons or objects).”<sup>5</sup> Furthermore, “store” can mean “to place or leave in a location (as a warehouse, library, or computer memory) for preservation or later use or disposal.”<sup>6</sup> In this case, storing in a computer memory is the appropriate definition.

Because the addition of “storing a list” to the claims does not introduce new matter to the application and the meaning of “storing a list” is known to a person skilled in the art even without an explicit definition in the specification, the written description requirement is satisfied. Accordingly, Applicants respectfully request that the Examiner

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<sup>5</sup> Merriam-Webster’s Collegiate Dictionary, 11th Ed., 2004.

<sup>6</sup> Merriam-Webster’s Collegiate Dictionary, 11th Ed., 2004.

reconsider and withdraw the rejection of claims 1-7 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

**Rejection of Claims 1-7 under 35 U.S.C. § 112, Second Paragraph**

Applicants respectfully traverse the rejection of claims 1-7 under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner alleges, "the phrase 'hierarchically inferior' is vague and indefinite" and that " the phrase 'storing a list' is vague and indefinite." Office Action, pp. 5-6. In view of the discussion above regarding "hierarchically inferior" and "storing lists," claims 1-7 are not indefinite. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claim 1-7 under 35 U.S.C. § 112, second paragraph, as being indefinite.

**Rejection of Claims 1-6 under 35 U.S.C. § 101**

Applicants respectfully traverse the rejection of claims 1-6 under 35 U.S.C. § 101. However, to advance prosecution, Applicants amend the specification to delete "information carrier" and "propagated signal." Therefore, claims 1-6 recite statutory subject matter. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 1-6 under 35 U.S.C. § 101.

**Rejection of Claims 1, 2, 4, and 6 under 35 U.S.C. § 102(e)**

Applicants respectfully traverse the rejection of claims 1, 2, 4, and 6 under 35 U.S.C. § 102(e) as being anticipated by *Vaid*. In order to properly establish that *Vaid* anticipates Applicants' claimed invention under 35 U.S.C. § 102, each and every element of each of the claims in issue must be found, either expressly described or

under principles of inherency, in that single reference. Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim.” See M.P.E.P. § 2131, quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Applicants submit that *Vaid* does not teach or suggest each and every element of Applicants’ claims.

Independent claim 1 calls for a combination including, for example, “the services storing a list of hierarchically inferior services.” The Examiner states “that ‘storing a list’ is functionally equivalent to storing information in a database as disclosed by *Vaid* (Col 25, lines 1-6 and Col 9, lines 17-21).” Office Action, p. 23. Even assuming the Examiner’s statement is correct and *Vaid* discloses “storing a list,” which Applicants do not concede, *Vaid* fails to disclose or suggest “the services storing a list of hierarchically inferior services,” as recited in claim 1 (emphasis added).

“[T]he service[] storing a list of hierarchically inferior services,” as recited in claim 1, means that the services included in the list (i.e., listed services) are hierarchically inferior to the service that stores the list (i.e., list-storing service). That is, the hierarchically inferior or hierarchically superior relationships are between the list-storing service and the listed services. The superior/inferior relationships are not relationships among the listed services.

The Examiner argues that “*Vaid* teaches . . . servers . . . listed in ascending or descending order.” Office Action, p. 9. However, the servers listed in ascending or descending order in *Vaid* disclose relationships among the listed servers. *Vaid* does not

teach or suggest “the service[] storing a list of [other services] hierarchically inferior [to the service],” as recited in claim 1.

For at least the foregoing reasons, *Vaid* does not teach or suggest each and every element of claim 1, and thus fails to anticipate claim 1. Independent claim 4 recites “the first grid manager storing a list of one or more grid managers hierarchically inferior to the first grid manager.” Claim 4 is thus allowable over *Vaid* for at least reasons similar to those given for claim 1. In addition, dependent claims 2 and 6 are allowable over *Vaid* at least due to their dependence from allowable base claims 1 and 4, respectively. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of claims 1, 2, 4, and 6 under 35 U.S.C. § 102(e).

**Rejections of Claims 3, 5, and 7 under 35 U.S.C. § 103(a)**

Applicants respectfully traverse the rejection of claim 3 under 35 U.S.C. § 103(a) as being unpatentable over *Vaid* in view of *Weitzman*; the rejection of claim 5 under 35 U.S.C. § 103(a) as being unpatentable over *Vaid* in view of *Bibayan*; and the rejection of claim 7 under 35 U.S.C. § 103(a) as being unpatentable over *Vaid* in view of *Pitchaikani*. A *prima facie* case of obviousness has not been established.

“The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. . . . [R]ejections on obviousness cannot be sustained with mere conclusory statements.” M.P.E.P. § 2142, 8th Ed., Rev. 6 (Sept. 2007) (internal citation and quotation marks omitted). “[T]he framework for objective analysis for determining obviousness under 35 U.S.C.

103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). . . . The factual inquiries . . . are as follows:

- (A) [Determining the scope and content of the prior art;]
- (B) Ascertaining the differences between the claimed invention and the prior art;

and

- (C) Resolving the level of ordinary skill in the pertinent art."

M.P.E.P. § 2141(II). "Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art." M.P.E.P. § 2141(III).

Here, a *prima facie* case of obviousness has not been established because the Examiner has neither properly determined the scope and content of the prior art nor properly ascertained the differences between the claimed invention and the prior art. Accordingly, the Examiner has failed to clearly articulate a reason why the prior art would have rendered the claimed invention obvious to one of ordinary skill in the art.

As discussed above, *Vaid* fails to teach or suggest "the services storing lists of hierarchically inferior services," as recited in claim 1, and required by claim 3, as well as "the first grid manager storing a list of one or more grid managers hierarchically inferior to the first grid manager," as recited in claim 4, and required by claim 5. Furthermore, *Vaid* fails to teach or suggest "the grid manager representing the root node storing a list of hierarchically inferior grid managers representing the nodes hierarchically inferior to the root node," as recited in claim 7, for at least reasons similar to those given above for claim 1. Therefore, *Vaid* fails to teach or suggest all the elements of claims 3, 5, and 7.

Secondary references, *Weitzman*, *Bibayan*, and *Pitchaikani*, cited by the Examiner fail to cure the above-discussed deficiencies of *Vaid*. The Examiner argues that “*Weitzman* discloses columns as servers and services in the computer-readable medium in which columns represent grid nodes” (Office Action, p. 16), “*Bibayan* discloses the computer-readable medium wherein the GUI further comprises a shrinkable structure that hides the labels” (*Id.* at 17), and “*Pitchaikani* discloses . . . receiving a request to view a sub grid network of a grid network, the sub grid network representing a root node and nodes hierarchically inferior to the root node, the nodes representing grid managers managing one or more services running on computers in the grid network” (*Id.* at 13). Even assuming the Examiner’s characterizations of *Weitzman*, *Bibayan*, and *Pitchaikani* are correct, which Applicants do not concede, *Weitzman* fails to teach or suggest “the services storing lists of hierarchically inferior services,” required by claim 3, *Bibayan* fails to teach or suggest “the first grid manager storing a list of one or more grid managers hierarchically inferior to the first grid manager,” required by claim 5, and *Pitchaikani* fails to teach or suggest “the grid manager representing the root node storing a list of hierarchically inferior grid managers representing the nodes hierarchically inferior to the root node,” as recited in claim 7. Moreover, the Examiner has provided no explanation of how the prior art could be modified to achieve the claimed combination.

At least because of the above-discussed elements of claims 3, 5, and 7, the scope and content of the prior art have not been properly determined, and the differences between the prior art and claims 3, 5, and 7 have not been properly

ascertained. Thus, no reason has been articulated as to why the prior art would have rendered claims 3, 5, and 7 obvious to one of ordinary skill in the art. Therefore, a *prima facie* case of obviousness has not been established with respect to claims 3, 5, and 7. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejections of claims 3, 5, and 7 under 35 U.S.C. § 103(a).

**Provisional Non-Statutory Obviousness-Type Double Patenting Rejection**

The Examiner provisionally rejected claims 1-5 and 7 of this application over copending Application No. 10/712,886 ("the '886 application") in view of *Vaid*. Applicants respectfully traverse each of the provisional double patenting rejections and request that the rejections be held in abeyance. The '886 application is currently pending and, thus, no double patenting circumstances can arise until a patent is granted. Since no patent has apparently issued from the '886 application, Applicants respectfully request that the provisional rejections be held in abeyance and any resolution in the form of a terminal disclaimer or otherwise be deferred.

**Conclusion**

In view of the foregoing, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge  
any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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